

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date
27 January 2005 (27.01.2005)

PCT

(10) International Publication Number
WO 2005/008569 A1

(51) International Patent Classification⁷:

G06K 9/00

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AB, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(21) International Application Number:

PCT/SI2004/001147

(22) International Filing Date: 21 July 2004 (21.07.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

0302114-4

21 July 2003 (21.07.2003) SE

(71) Applicant (for all designated States except US): CELLAVISION AB; Forskningsbyn Ideon, S-223 70 Lund (SE).

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GI, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(72) Inventor; and

(75) Inventor/Applicant (for US only): KARLSSON, Adam [SE/SE]; Kämärsvägen 7G:111, S-226 46 Lund (SE).

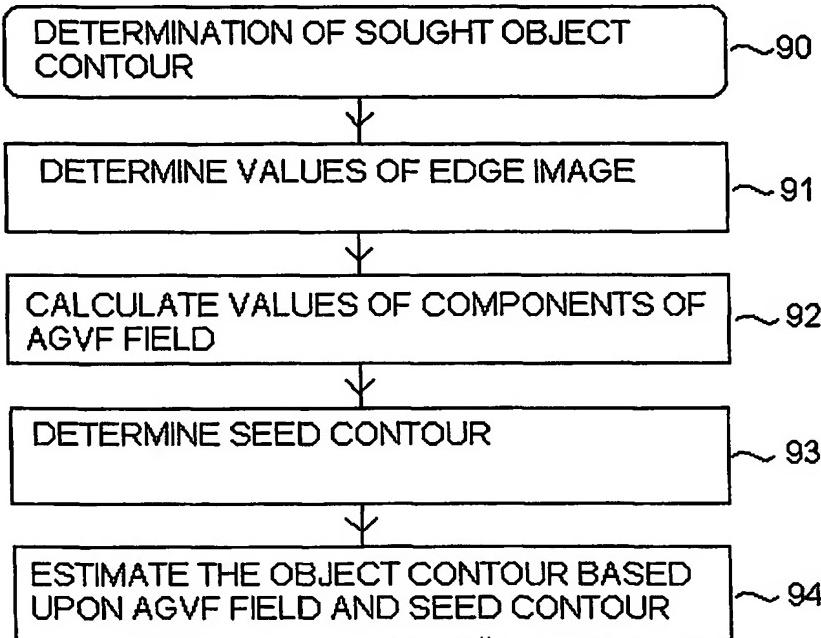
(74) Agent: AWAPATENT AB; Box 5117, SE-200 71 Malmö (SE).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: METHOD AND ARRANGEMENT FOR DETERMINING AN OBJECT CONTOUR



(57) Abstract: The invention relates to a method of determining a sought object contour in a digital microscope image, which comprises a plurality of image elements and reproduces a biological material. The method is characterized by the steps of assigning edge values to at least a first subset of the image elements in the image; assigning values of a first gradient vector component whose values each comprise a first linear combination of edge values of some surrounding image elements to at least a second subset of the image elements in the image; assigning values of a second gradient vector component whose values each comprise a second linear combination of edge values of some surrounding image elements to at least a third subset of the image elements in the image; and calculating an estimate of the sought object contour based upon values of the first and the second gradient vector components.